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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,959	12/18/2001	John William Artley		7183

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EXAMINER
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BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/022,959	<b>Applicant(s)</b> ARTLEY ET AL.	
	<b>Examiner</b> Jennifer A Boyd	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                             |                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/18/01</u> | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Applicant's Amendments and Accompanying Remarks, filed April 30, 2004, have been entered and have been carefully considered. Claim 1 is amended, claims 2 – 3 are cancelled and claim 1 is pending. The invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102***

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Soane et al. (US 2003/0013369).

Soane et al. is directed to a nanoparticle-based permanent treatment for textiles (Title). Soane teaches that a solution comprising nanoparticles which are formed by contacting an agent or other payload with a set of monomers, oligomers or polymers (page 2, [0014]). Soane teaches that the monomers, oligomers, or polymers may be optionally copolymerized with soft or rubber monomers or polymers. Soane teaches that the soft or rubber monomer or polymer can be polyethylene glycol (page 3, [0073]). The Examiner equates the soft or rubber monomer or polymer of polyethylene glycol to Applicant's "polyethylene glycol". Soane teaches that in one embodiment that the textile-reactive payload nanoparticles are suspended in an aqueous solution that contains a linker molecule (e.g., a compound having two or more N-methylol groups, such

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as DMDHEU or DMUG). The Examiner equates the linker molecule compound of DMDHEU to Applicant's "resin". Soane teaches that a catalyst may also be included such as a Lewis acid catalyst (page 6, [0095]). The Examiner equates the Lewis acid catalyst to Applicant's "acid catalyst". The solution is exposed to a variety of different substrates such as fabrics and textiles made of natural or synthetic fibers (page 6, [0093]). It should be noted that it is known that the application of a solution to a substrate would result in a wet substrate because a solution inherently contains water or a liquid substance. Soane teaches applying the solution to the fabric by soaking, spraying, dipping, fluid flow or padding and then subsequently drying (page 6, [0095]). Soane notes that the binding reactions may occur before, during or after the drying process (page 6, [0095]). Soane teaches that the process temperature is about 5 to 180 °C (41 – 356 °F) (page 6, [0097]), which overlaps Applicant's requirement of not exceeding about 220 °F. Soane teaches that the pH should be kept neutral to basic when treating cotton fabric (page 6, [0097]). It should be noted that in order to keep a solution basic, a neutralizing treatment would inherently be used. Also, Soane teaches that the pH of the solution should be kept basic; it should be noted that basic means a pH of 7.

Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or an obvious variant from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the Applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983).

***Response to Arguments***

4. Applicant's arguments filed April 30, 2004 have been fully considered but they are not persuasive.

5. In response to Applicant's Arguments stating that Soane fails to teach or suggest a "PEG formulation containing an acid catalyst and resin for bonding the resin and polyethylene glycol to a fabric", the Examiner respectfully argues the contrary. Soane teaches that a solution comprising nanoparticles which are formed by contacting an agent or other payload with a set of monomers, oligomers or polymers (page 2, [0014]). Soane teaches that the monomers, oligomers, or polymers may be optionally copolymerized with soft or rubber monomers or polymers. Soane teaches that the soft or rubber monomer or polymer can be polyethylene glycol (page 3, [0073]). The Examiner equates the soft or rubber monomer or polymer of polyethylene glycol to Applicant's "polyethylene glycol". Soane teaches that in one embodiment that the textile-reactive payload nanoparticles are suspended in an aqueous solution that contains a linker molecule (e.g., a compound having two or more N-methylol groups, such as DMDHEU or DMUG). The Examiner equates the linker molecule compound of DMDHEU to Applicant's "resin". Soane teaches that a catalyst may also be included such as a Lewis acid catalyst (page 6, [0095]). The Examiner equates the Lewis acid catalyst to Applicant's "acid catalyst". As discussed above, Soane contains Applicant's "PEG", "resin" and "acid catalyst". The Applicant seems to imply in the Arguments that an additional resin is present for bonding "the resin and polyethylene glycol to the fabric". Are there two resins? If so, the Applicant should amend the limitations in the claim to include two resins.

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6. In response to Applicant's Arguments that Soane teaches that that the process preferably takes place at room temperature unlike Applicant's limitation of taking place at a temperature that does not exceed 220 °F, the Examiner respectfully points out that Soane teaches that the process temperature is about 5 to 180 °C (41 – 356 °F) (page 6, [0097]), which overlaps Applicant's requirement of not exceeding about 220 °F. The Examiner does acknowledge that Soane states that the process is carried out most preferably at room or ambient temperature. However, Soane does disclose one embodiment in which the process temperature is about 5 to 180 °C (41 – 356 °F). Although such a process temperature might not be a preferred embodiment, Soane does disclose such a temperature range which meets Applicant's limitations.

***Conclusion***


7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer Boyd  
July 3, 2004

  
**Ula C. Ruddock**  
Primary Examiner  
Tech Center 1700